

COMPRESSOR BLADE PLATFORM EXTENSION AND METHODS OF
RETROFITTING BLADES OF DIFFERENT BLADE ANGLES

ABSTRACT OF THE DISCLOSURE

[0021] Blades of increased blade angle may be retrofitted onto existing compressor rotor wheels as replacement blades whereby higher performance and efficiency without replacing the rotor wheel may be achieved. The base attachments of replacement blades are provided with lateral extensions or flanges and the rim of the compressor wheel is provided with recesses straddling the grooves to accommodate the flanges. The leading edge of the replacement blade is positioned circumferentially for support only by the platform extension thereby limiting the mean and vibratory stresses in the leading edge of the airfoil and maximizing damage tolerance.